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Zogg et al.

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(54) **TOTAL STATION HAVING SCANNING
FUNCTIONALITY AND SELECTABLE
SCANNING MODES**

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See application file for complete search history.

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(57) **ABSTRACT**

A total station including an electro-optical distance measur-
ing unit and a scanning functionality is disclosed. The total
station may include an analysis unit for analysis of the
registered measuring signal data and conversion thereof into
scanning points for a point cloud, whereby a point cloud
having the scanning points can be generated. The distance
measuring unit may be configured in such a manner that the
distance measurement can be carried out by means of
runtime measurement and/or waveform digitizing (WFD).
In addition, the total station may have a program storage unit
which may provide at least two scanning modes, wherein the
at least two scanning modes differ at least in a measuring
rate such as, for example, in the number of scanning points
per unit of time.

18 Claims, 9 Drawing Sheets

